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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,888	08/15/2000	Kingo Suzuki	P107242-0000	4637
7590		05/08/2007		
Arent Fox Kintner Plotkin & Kahn Suite 600 1050 Connecticut Avenue NW Washington, DC 20036-5339				
			EXAMINER	
			TRINH, HOA B	
			ART UNIT	PAPER NUMBER
			2814	
			MAIL DATE	DELIVERY MODE
			05/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/600,888

Applicant(s)

SUZUKI ET AL.

Examiner

Vikki H. Trinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/24/2007 has been entered.

Claims Status

Claims 7, 11, 13 are pending in the present application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wegleiter (6,531,405) in view of Blonder.

Wegleiter (6,531,405) discloses a light emitting diode 18 (fig. 1) comprising a pellet 2, 3, 4 (fig. 1), a major front surface 4 (fig. 1) which is made of a GaAsP (col. 5, lines 18-28) mixed crystal, characterized in that the major front surface 4 is a rough surface (fig. 1). That all side surfaces (fig. 1) of the pellet are roughened, wherein the rough surfaces are formed with fine projections having a diameter (col. 4, lines 2-5).

However, Wegleiter does not explicitly teach the range for the diameter as claimed.

Blonder teaches an analogous device having a diameter or width of the projections (rib structure) 23 (fig. 2) about 3 micrometers which is within the claimed range (col. 4, lines 23-25) for precisely selecting the wavelength of the emitting device (col. 1, lines 60-65).

Therefore, as to claim 7, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Wegleiter with the diameter measurement, as taught by Blonder, for the advantage as mentioned in the above.

2. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wegleiter in view of Blonder, and further in view of Nishiwaki.

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Wegleiter in view of Blonder discloses the invention substantially as claimed, as stated in the rejection of claim 7 above, except that the etching agent contains the list of materials as claimed.

Nishiwaki et al. (59085868) teaching an etching agent using an etching agent such as an aqueous solution containing Br₂, nitric acid, hydrofluoric acid and acetic acid or I₂, nitric acid, hydrofluoric acid and acetic acid for reducing the cost of production. See abstract.

Therefore, as to claim 11, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Wegleiter in view of Blonder with an aqueous etching solution containing the claimed compounds, as taught by Nishiwaki et al. (59085868), so as to reduce the cost of making the surfaces of the pellet as claimed.

With respect to claim 13, the teaching of Wegleiter, Blonder and Nishiwaki for the specific concentration range of the nitric acid, hydrofluoric acid, and acetic acid in the etching solution would have been obvious to one skilled in the art at the time the invention was made to provide a specific range of concentration, since it is prima facie obvious to an artisan for routine experimentation and optimization to create a specific range for the concentration because applicant has not yet established any criticality for the specific range. The courts have concluded that a change in dimension, degree, size, shape, etc. without special functional significance is not patentable. Research Corp. v. Nasco Industries, Inc., 501 F2d 358; 182 USPQ 449 (CA 7), cert. denied 184 USPQ 193; *USLW* 3359 (1974), *In re Rose*, 105 USPQ 137, and *In re Aller et al.*, 105 USPQ 233.

Response to Arguments

3. Applicant's arguments with respect to the pending claims have been considered but they are not persuasive.

Applicants' argument in the Affidavit appears to direct toward Wegleiter reference alone while the rejections are 35 USC 103 (a) under Weigleiter in view of Blonder for claim 7 and Weigleiter in view of Blonder and further in view of Nishiwaki for claims 11 and 13. Thus, applicants are not presenting an appropriate argument for the rejections of the present claims, because the argument is incomplete. Even for the sake of an argument that applicants have intended to argue the rejections of claim 7 under Wegleiter in view of Blonder and Claims 11 and 13 under Wegleiter in view of Blonder and further in view of Nishiwaki, applicants still have not persuasively argued the distinction between the present invention and the cited reference. The cited references teach all of the limitations as claimed, thereby providing the desired results. Applicants even admit in the affidavit on pages 1-2 that the cited references provide two etching steps with substantially similar etching agents to that of the etching steps in the present application.

Therefore, applicants have not overcome the cited reference.

Conclusion

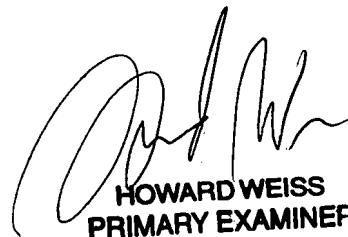
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (571) 272-1719. The Examiner can normally be reached from Monday-Friday, 9:00 AM - 5:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (571) 272-1705. The office fax number is 703-872-9306.

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Any request for information regarding to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Also, status information for published applications may be obtained from either Private PAIR or Public Pair. In addition, status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspro.gov>. If you have questions pertaining to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

Vikki Trinh,
Patent Examiner
AU 2814



HOWARD WEISS
PRIMARY EXAMINER